Amendments to the claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

Claims 1-40 (canceled).

41 (new): A method for detecting an analyte in a sample comprising the steps of

- providing detection probes labeled with a first reporter, which detection probes are capable of binding to the analyte,
- providing a solid support,
- providing capture probes bound or capable of binding to the solid support, which capture probes are capable of binding to the analyte, thus concentrating the analyte on the solid support,
- contacting the sample with the detection probes, the solid support and the capture probes,
- forming a hybrid between the detection probes and the analyte and, then,
- detecting the detection probes, wherein

- the detection of detection probes is conducted in the presence of quenching probes binding to surplus detection probes not bound to the analyte and thereby quenching at least partially an emission of the first reporter of the surplus detection probes.

42 (new): A method for detecting an analyte in a sample comprising, in a homogeneous format, the steps of

- providing detection probes labeled with a first reporter, which detection probes are capable of binding to the analyte,
- providing a solid support labeled with a second reporter different than the first reporter,
- providing capture probes bound or capable of binding to the solid support, which capture probes are capable of binding to the analyte, thus concentrating the analyte on the solid support,
- contacting the sample with the detection probes, the solid support and the capture probes, and
- detecting the detection probes, wherein
    - the detection comprises recording an image of the sample at an emission wavelength of the second reporter simultaneously with an image used for detecting the detection probes, generating a mask obtained from imaging the sample at the emission wavelength of the second reporter and applying this mask to the image of the sample used for detecting the detection probes.

43 (new): The method according to claim 41 wherein the detection probes are detection oligonucleotides, the capture probes are capture oligonucleotides, and the quenching probes are quenching oligonucleotides.

44 (new): The method according to claim 42 wherein the detection probes are detection oligonucleotides and the capture probes are capture oligonucleotides.

45 (new): The method according to claim 44 wherein the first and/or second reporter is luminescent.

46 (new): The method according to claim 44 wherein the first and/or second reporter is a dye.

47 (new): The method according to claim 43 wherein the detection oligonucleotides are labeled with a first fluorescent dye and/or the solid support is labeled with a second fluorescent dye.

48 (new): The method according to claim 43 wherein a hybrid between detection oligonucleotides and analyte has a higher melting temperature than a hybrid between detection oligonucleotides and quenching oligonucleotides.

49 (new): The method according to claim 47 wherein a melting temperature of a hybrid between detection oligonucleotides and analyte is at least 1 °C higher than a melting temperature of a hybrid between detection oligonucleotides and quenching oligonucleotides under test conditions.

50 (new): The method according to claim 43 wherein contacting the sample with the detection oligonucleotides is performed under first hybridization conditions allowing the generation of a stable hybrid between detection oligonucleotides and analyte.

51 (new): The method according to claim 49 wherein contacting the sample with the quenching oligonucleotides is performed under second hybridization conditions allowing the generation of a stable hybrid between surplus detection oligonucleotides not bound to the analyte and quenching oligonucleotides.

52 (new): The method according to claim 50 wherein the second hybridization conditions do not destabilize a hybrid between detection oligonucleotides and analyte formed under the first hybridization conditions.

53 (new): The method according to claim 43 wherein the capture oligonucleotides are covalently bound to the solid support.

54 (new): The method according to claim 43 wherein the capture oligonucleotides are capable of binding to the solid support via affinity interaction.

55 (new): The method according to claim 53 wherein the capture oligonucleotides comprise a first affinity unit capable of binding to a second affinity unit attached to the solid support.

56 (new): The method according to claim 54 wherein the first affinity unit is biotin and the second affinity unit is streptavidin or avidin.

57 (new): The method according to claim 43 wherein the solid support is a bead, a cell, a pollen, or a plurality thereof.

58 (new): The method according to claim 44 wherein the first reporter labeling the detection oligonucleotides differs in its excitation wavelength and/or its emission wavelength from the second reporter labeling the solid support.

59 (new): The method according to claim 57 wherein the difference in the excitation wavelength and/or emission wavelength between first and second reporter is at least 10 nm.

60 (new): The method according to claim 43 wherein the detection oligonucleotides comprise a linker sequence, linking the sequence of detection oligonucleotide complementary to the analyte with the first reporter.

61 (new): The method according to claim 43 wherein the capture oligonucleotides comprise a linker sequence, linking the sequence of the capture oligonucleotide complementary to the analyte with the affinity unit or the solid support.

62 (new): The method according to claim 43 wherein at least two different analytes are detected by providing at least two different sets of detection oligonucleotides and at least two different sets of capture oligonucleotides.

63 (new): The method according to claim 61 wherein the different sets of detection oligonucleotides are labeled with different reporters.

64 (new): The method according to claim 62 wherein the reporters of one set are identical, have the same excitation wavelength and/or the same emission wavelength.

65 (new): The method according to claim 44 wherein the image recorded at the emission wavelength of the second reporter is corrected such that it spatially matches with the image used for detecting the detection oligonucleotides, or vice versa.

66 (new): The method according to claim 43 wherein the quenching oligonucleotides have a quenching unit.

67 (new): The method according to claim 65 wherein the first reporter is a donor of a Förster resonance energy transfer (FRET) donor-acceptor-pair and the quenching unit is an acceptor of the donor-acceptor-pair.

68 (new): The method according to claim 65 wherein the quenching unit is a dark quencher which quenches at least partially the emission of the first reporter by dissipating an energy of an excited state of the first reporter into the environment.

69 (new): The method according to claim 43 further comprising the step of quantifying the analyte.

70 (new): The method according to claim 68 wherein the quantification is performed by determining an amount of detection oligonucleotides bound to the analyte.

71(new): The method according to claim 69 wherein the amount of detection oligonucleotides bound to the analyte is expressed as the emission intensity emitted by the first reporter.

72 (new): The method according to claim 69 further comprising the step of determining an intensity of a background emission in the vicinity of the solid support and considering such intensity when determining the amount of detection oligonucleotides.

73 (new): The method according to claim 44 wherein the image of the sample used for detecting the detection oligonucleotides is acquired at the emission wavelength of the first reporter.

74 (new): The method according to claim 41 wherein the detection probes are aptameres, oligonucleotides, or antibodies.

75 (new): The method according to claim 42 wherein the detection probes are aptameres, oligonucleotides, or antibodies.

76 (new): The method according to claim 43 wherein the analyte is a protein or a nucleic acid.

77 (new): The method according to claim 43 wherein the sample is a cell or an *in vitro* prepared sample.

78 (new): The method according to claim 61 wherein the capture oligonucleotides of different sets are attached or capable of binding to different solid supports.

79 (new): The method according to claim 77 wherein the solid supports differ in the affinity units attached thereto, which affinity units interact with affinity units of the capture oligonucleotides.

80 (new): The method according to claim 43 further comprising adding a substance to a cellular sample and analyzing whether the substance induces, inhibits, or modulates generation of the analyte.

81 (new): The method according to claim 43 further comprising adding a substance to a cellular sample and analyzing the substance for pharmaceutical activity, for diagnosis, or for side effects.